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JC962 U.S. PTO

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PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. JUR-PT001
First Inventor Schwartz et al.
Title LOBEMAN
Express Mail Label No. EL703381126US11/03/00
80590/6
109706508
109706508

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages]
(preferred arrangement set forth below)
- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table,
or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets]
5. Oath or Declaration [Total Pages]
a. ☒ Newly executed (original or copy)
Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 17 completed)
i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s)
named in the prior application, see 37 CFR
1.63(d)(2) and 1.33(b)
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:

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Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or
Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
a. ☐ Computer Readable Form (CRF)
b. Specification Sequence Listing on:
i. ☐ CD-ROM or CD-R (2 copies); or
ii. ☐ paper
c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of
(when there is an assignee) Attorney
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure ☒ Copies of IDS
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☒ Other: Check in the amount of \$1439.00

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment,
or in an Application Data Sheet under 37 CFR 1.76:☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. _____

Prior application information

Examiner _____

Group / Art Unit _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under
Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.
The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

18. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label3624
(Insert Customer No. or Attach bar code label here)or ☐ Correspondence address below

Name

Volpe and Koenig, P.C.

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

Jeffrey M. Glabicki, Esquire

Registration No. (Attorney/Agent)

42,584

Signature

Date 11/3/00

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Volpe and Koenig, P.C. Revision of PTO/SB/17 (08-00)

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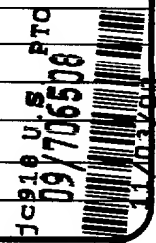
**FEE TRANSMITTAL
for FY 2000**

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 1439.00)

Complete if Known

Application Number	Not Yet Known
Filing Date	Not Yet Known
First Named Inventor	Schwartz et al.
Examiner Name	Not Yet Known
Group Art Unit	Not Yet Known
Attorney Docket No.	JUR-PT001

**METHOD OF PAYMENT (check one)**

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit
Account
Number

22-0493

Deposit
Account
Name

Volpe and Koenig, P.C.

☒ Charge Any Deficiency or Credit any Overpayment
in the Total Fees Associated with this Communication

☒ Applicant claims small entity status
See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money
Order ☐ Other

FEE CALCULATION**1. BASIC FILING FEE**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
101	710	201	355	Utility filing fee	355
106	320	206	160	Design filing fee	
107	490	207	245	Plant filing fee	
108	710	208	355	Reissue filing fee	
114	150	214	75	Provisional filing fee	

Fee Paid

SUBTOTAL (1) (\$ 355.00)

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
58	-20** = 38	18	684
Independent Claims	8 - 3** = 5	80	400
Multiple Dependent			0

**or number previously paid, if greater, For Reissues, see below

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
103	18	203	9	Claims in excess of 20
102	80	202	40	Independent claims in excess of 3
104	270	204	135	Multiple dependent claim, if not paid
109	80	209	40	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 1084.00)

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	390	216	195	Extension for reply within second month	
117	890	217	445	Extension for reply within third month	
118	1,390	218	695	Extension for reply within fourth month	
128	1,890	228	945	Extension for reply within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,240	241	620	Petition to revive - unintentional	
142	1,240	242	620	Utility issue fee (or reissue)	
143	440	243	220	Design issue fee	
144	600	244	300	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	710	246	355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	710	249	355	For each additional invention to be examined (37 CFR § 1.129(b))	
179	710	279	355	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 0.00)

SUBMITTED BY

Name (Print/Type) Jeffrey M. Glabicki, Esquire

Registration No.
(Attorney/Agent)

42,584

Complete (if applicable)

Telephone

215-568-6400

Signature

Date

11/3/06

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LOBEMAN

BACKGROUND

The invention generally relates to communication devices. In particular, the invention relates to portable communication devices.

5 Communication devices are increasing in popularity, such as portable cassette players and portable radios. A typical portable radio has an antenna for receiving radio frequency signals and an adjustable tuner which can be set to receive a radio frequency of a desired radio station transmission. The received signal of the radio station is sent to a speaker and audio signals are produced by the speaker for use by the listener. An individual using such a radio, typically, tunes the radio to the frequency of a desired radio station. As a result, the individual receives signals from the desired radio station.

As the size of tuners and other radio components is decreasing in both size and cost, both the size and cost of radios as well as other portable communication devices is decreasing. Accordingly, it is desirable to have alternate uses for such devices.

SUMMARY

15 A portable communication device associated with a predetermined broadcast has a receiver and a speaker. The receiver receives the predetermined broadcast. The receiver is preset to receive the predetermined broadcast. The speaker produces audio signals of the received predetermined broadcast.

BRIEF DESCRIPTION OF THE DRAWINGS

20 Figure 1 is a flow chart of associating a portable communication device with a broadcast.

Figure 2 is a flow chart of associating a portable communication device with a broadcast using a timelock.

Figures 3A-3C are illustrations of a portable radio configured to fit around an ear.

Figure 3D is a sideview of the speaker of the radio of Figure 3C.

Figures 4A-4C are illustrations of the portable radio of Figures 3A-3B being worn by an individual.

Figure 5 is a diagram of radio components.

Figure 6 is a diagram of radio components including a burst transmitter.

Figure 7 is an illustration of a distributed communication network.

Figure 8 is an illustration of a distributed communication network using a single frequency.

Figure 9 is a diagram of radio components including a microphone and transmitter.

Figure 10 is an illustration of a portable radio with a microphone.

Figure 11 is an illustration of an automated distributed communication network.

Figures 12A and 12B are illustrations of a portable "digital recording" player configured to fit around an ear.

Figure 13 is a diagram of components of a "digital recording" player.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

Figure 1 is a flow chart illustrating associating a portable communication device, such as a portable radio, portable television, personal digital assistant (PDA) or cellular phone, with a predetermined broadcast. When the communication device is a portable radio, the predetermined broadcast may be a radio station broadcast or a radio show broadcast. When the communication device is a portable television, the predetermined broadcast may be a television station broadcast or a television show broadcast. The predetermined broadcast may also be sent in a digital format, such as digital radio, digital cable or the Internet. The predetermined broadcast may be a one time or infrequent event, such as a sporting event or

a concert. The predetermined broadcast may also be a periodic event, such as a daily radio show or a weekly television show.

The portable communication device is set to receive the predetermined broadcast, step 10. When the communication device is a radio, the radio is set to the radio frequency of the broadcast. When the broadcast is a television station or show, the communication device is set to the frequency of the television broadcast. When the communication device is used to receive digital signals, such as a PDA device or digital cellular phone, the communication device is preset to decode that broadcast. In addition to decoding, the communication device may also require setting the device to a predetermined frequency and decrypting data, based on the digital media.

After the portable communication devices have been set to receive the broadcast, the communication devices are distributed to individuals, step 12. The distribution may be by selling the devices directly to consumers. To illustrate, radios set to a station broadcasting a football game are sold at the football stadium or at local stores. Additionally, the devices may be distributed by selling them to a broadcaster, who will give them away to promote a broadcast. To illustrate, a radio station desires to promote itself. The radio station may give away portable radios preset to its radio frequency. Additionally, the devices may be sold to a sporting event related entity. The devices may be packaged with tickets to the sporting event, such as golf or football.

As illustrated in Figure 2, for broadcasts having an associated broadcast time period, such as a radio show or a television show, the communication device is set to only work during the time period of broadcast of that show, step 14, such as by use of a timer. Essentially, the communication device is locked, "time locked", to a predetermined operating time. To illustrate, a radio station's morning show is broadcast at 5 a.m. to 11 a.m. on weekdays. The communication device, being a radio, is set to the radio frequency of that radio station and only operates during the hours of 5 to 11 a.m. As a result, only the reception of that radio show can be received on the communication device.

The time lock has other advantages. For portable devices using batteries, limiting the operating period of the communication device extends the life of the battery. The extended life reduces the period between battery replacements or recharges. If the time locked communication devices are sold as disposable units, the extended life increases the time between purchases, reducing the cost to the purchaser, such as a promoter or a broadcast listener.

Figure 3A is one portable radio 16 configured to fit in and around an ear for use in receiving predetermined broadcasts. The radio 16 has a speaker 18, a housing 20, which contains the radio components, and an antenna 22. On the housing 20 is a switch or button 24 for use in turning the radio on and off and controlling the volume. Also as shown, the housing 20 may have an adapter 25 to allow access for setting the radio's frequency. Alternately, if the portable radio 16 is not fixedly set to the predetermined broadcast, the radio 16 may have a knob or button for adjusting the frequency of an adjustable tuner.

When worn by an individual, as shown in Figure 4A, the speaker 18 is configured to fit substantially in the concha portion 28 of the ear 26. The speaker directs sound towards the ear canal 30. A hollow rigid cylinder 34 extends from the speaker upwards towards the front 32 of the helix portion of the ear 26. The cylinder 34 contains conductors to the speaker 18. A semi-flexible C-shaped housing 20 contains the major components of the radio. As shown in Figure 4A, the semi-flexible housing molds to the contour of the top and back of the meeting of the pinna 31 and head. As a result, the radio 16 can be used with individuals with varying ear shape and size. The semi-flexible housing is connected to the rigid member 34. The housing 20 has a narrow portion resting on top of the pinna/head connection. When worn, the narrow portion fits in the gap between the pinna 31 and head. A wider portion follows the back of the pinna/head connection and extends slightly below the ear 26. An antenna 22 projects out of the bottom of the housing for use in receiving radio frequency signals.

Due to this configuration of the radio 16, the radio 16 is held in place even under strenuous listener activity. The radio speaker 18 is biased against the ear concha 28. The narrow portion of the housing 20 is supported by the top of the pinna/head connection and during a shock biases against the pinna 31 and head. The wider portion, which contains most of the radio components and most of the radio's weight, is pulled towards the ground by gravity. The rigid cylinder 34 fixedly attached to the speaker 18 keeps gravity from pulling down the radio 16. Due to the various points of bias and support, the radio can remain in place when worn, even under strenuous activity. The C-shape and wider portion of the housing 20 holds the radio 16 on when the listener experiences an upward jolt. During an upward jolt, the wider portion biases partially against the lower pinna/head connection and the speaker biases against the concha 28. Additionally, as shown in Figures 3B and 4B an elastic band may be used to connect the speaker 18 to the wider portion housing. This extra connection allows the radio 16 to remain in place even when an individual is suspended up-side-down. To allow the radio 16 to be used in either the left or right ear 26, the speaker 18 may be rotatable so that it can direct sounds into the ear canal 30 of either ear 26.

As shown in Figures 3A-3C and 4A-4C, to better associate the radio 16 with the broadcast, indicia 24 of the broadcast is preferably put on the radio 16. For a radio station broadcast, the indicia 24 may be the radio station's associated frequency and symbol. For a sporting event broadcast, the indicia 24 may be a sports team's logo. Additionally, the indicia 24 may be of an advertiser or a sponsor of the event. The indicia 24 is preferably located such that it is visible when in use by the individual as shown in Figures 4A-4C.

Additionally, the speaker 18 can be enlarged to hold broadcast indicia 19 as shown in Figures 3C and 4C. As shown in Figure 3D, one portion 18B of the speaker 18 is configured to fit within that concha 28. A second portion 18A has a larger area for containing the indicia 19. As a result, the area for placing indicia 19 is increased with the speaker substantially fitting within the concha 28.

Figure 5 is an illustration of the circuitry of the radio 16. The antenna 22 receives various radio frequency signals. A tuner 48, which is pretuned to only the frequency of the desired received radio broadcast, is coupled to the antenna 22. The tuner 48 recovers the broadcast signal as a corresponding baseband signal. The baseband signal of the broadcast is amplified by an audio amplifier 40 and sent to the speaker 44. Based on the voltage levels output by the audio amplifier 40, a resistor may be used to adjust the voltage levels. The speaker 44 produces audio signals of the broadcast.

The tuner 48 is powered by a power supply 54, such as a battery. The power supply may also be a rechargeable battery. The supply 54 is coupled to the tuner 48, via a capacitor 52 and either a switch or push button 50. One type of switch or push button would have three states. The three states are an off-state, an on-state with low volume and an on-state with high volume. The low volume state allows a listener to hear things other than the received broadcast, such as conversations or traffic. The high volume state blocks out most external noise allowing the listener to hear primarily the broadcast. The switch/button 50 may have more than two volume states to allow the listener more choices in volume level.

For radios 16 to be distributed widely for a single broadcast, the tuner 48 may be a single frequency tuner. Alternately, a crystal, which will receive signals only at the desired frequency, may be used. A variable tuner may also be used. The variable tuner can be tuned to receive one of many radio frequencies. Preferably, during manufacture, the tuner 48 is set to the frequency of the predetermined broadcast. The tuner 48 is subsequently sealed in the housing 20 of the radio 16. As a result, an individual using the radio 16 will not be able to change the preset frequency.

The variable tuner allows for a single circuit design to be used. The tuner 48 is simply adjusted prior to being sealed in the housing 22. This allows for a single radio design to be used for multiple predetermined broadcasts. One approach to set the frequency, as shown in Figure 5, uses frequency fixing leads 38. The frequency is fixed by inputting an appropriate signal to an adapter 25, such as a female adapter as shown in Figures 3A-3C,

4A-4C, to set the radio's frequency. The variable tuner facilitates mass production of the radios 16 for use with multiple broadcasts. Radios 16 without indicia 19, 23 are mass produced. When an order for radios 16 for a certain broadcast is received, the frequency is set and the indicia 19, 23 is added.

5 The use of the frequency fixing leads 38 and a rechargeable battery allows the radios 16 to be used for multiple events. After one event, the radios 16 can be reset to a frequency of another event, battery recharged and new indicia 19, 23 put on the radios 16. For instance, the radios 16 may be distributed and collected at a concert one day and reused at a football game another day.

10 For broadcasts having a predetermined broadcast time period, the time lock aspect may be used. As shown in Figure 5, one approach to providing the time lock is to use a timer 36 and a timer switch 42. The timer 36 is used to determine when the radio should be on or off. The timer switch 42 decouples the supply 54 from the tuner 48 during periods when the radio 16 should not be operational. The period of operation is set during
15 manufacture.

20 By replacing the tuner with an infrared receiver, infrared signals can be received. Such a system is desirable when a broadcast is only desired to be received in a limited area. One such application is at a place with many points of interest, such as a museum or a scenic outdoor area, where an infrared transmitter would broadcast a description of the points of interest, such as artwork or a landmark, located near the transmitter. The tuner may also be replaced with a receiver capable of receiving other signals in the electromagnetic spectrum, such as light or microwaves.

25 For use in monitoring radio usage, the radio circuitry as illustrated in Figure 6 may be used. A burst signal transmitter 56 is coupled to the switch/button 50, periodically when the radio is on (in use), the burst signal transmitter 56 produces a burst signal. The burst signal is radiated by the antenna. A radio station may deploy receivers throughout its

operating area to receive the burst communications. As a result, the number of listeners using distributed radios and their location can be determined.

The radio 16 of Figures 3A-3C, 4A-4C and 5 could also be used in a distributed communication network, as shown in Figure 7. A variable frequency transmitter 66 and associated antenna 68, as shown in Figure 5, are capable of sending communications on one of a set of preassigned communication frequencies. One set 58 of the radio units 70-74 is fixed to receive communications at one transmitting frequency of the set. Another set 60 of radio units 76-80 is assigned to another transmission frequency of the set and so on for set 64 and its radios 82-84. As a result, an individual at the transmitter 66 can communicate with a selected group of individuals using the preassigned radio receivers. Using the radio 16 of Figures 3 to 5 in a work environment, the individuals can have both hands free to perform their tasks while receiving instructions from a central manager. The transmitter may transmit a signal containing voice or other sounds, such as music for the employees' enjoyment. Alternately, the transmitter 66 and radio units 70-84 may be configured to use other portions of the electromagnetic spectrum for communication, such as infrared or light. The transmitter 60 and radio units 70-84 may communicate in either an analog or digital format.

To reduce the complexity of both the transmitter and receivers, the network of Figure 8 may be used. The radio only transmits signals over a single fixed frequency. All 88 of the radios 70-84 only receive the radio signals over the single frequency.

One application for such a network is a supermarket or retail environment. An individual would speak into a public address system or network 100. The network 100 is coupled to the transmitter 99 which transmits to the radio units 70-74. As a result, only the employees with radio units 70-74 hear the public address messages, not the customers.

Figure 9 illustrates radio circuitry for use in a distributed network which allows for uplink communications. The microphone 92 would extend out of the bottom of the radio, as shown in Figure 10, and would be configured to receive the voice signals out of the

listeners mouth. A semi-rigid support 96 is used to connect the microphone 92 to the radio and support it in front of the listener's mouth. The semi-rigidness allows the microphone position to be adjusted for differing individuals. A transmitter 90 which is coupled to the antenna 22 converts the voice signal into a radio frequency signal. The antenna 22 radiates the radio frequency signal for reception at the central manager's antenna 68. A receiver is coupled to the manager's antenna 68 to receive the transmitted signal. The uplink signal may be sent over the same frequency that the radio is set to receive signals over in a half duplex mode. Alternately, the uplink signals may be sent over a different frequency so that full duplex communication may be used.

Figure 11 illustrates an automated distributed network. A central network 100 determines an order to be given. The central network 100 may be a single computer or a company's network. Middleware 98 converts the order into a voice signal, such as by using voice synthesizing software. A transmitter 99 transmits signals to the radio units 70-74. If the distributed network uses radio units set to different frequencies, the middleware indicates which individuals should receive the order. The middleware sets the transmitter 99 to the appropriate frequency.

One application for such a network is in a warehousing environment. Orders are received by the central network 100. The central network 100 via the middleware sends the orders by voice commands to the appropriate warehouse employee. The distributed network is compatible with existing central networks. The commands which would traditionally be sent to an individual are sent to the middleware 98. As a result, an existing network can be used without replacing its existing equipment or software.

Figures 12a and 12b are a "digital recording" player 102, such as an MP3 player, configured to fit around an ear. The "digital recording" player 102 has a speaker 18 which is configured to project audio sounds towards an individual's ear canal 30, when worn. The speaker 18 is fixably attached to a housing 20 which is configured to fit around and behind the ear 26. The housing 20 contains other components of the digital player circuitry. As

shown in Figure 12b, the player 102 may also have an elastic connector 35 to hold the player 102, when an individual is up-side-down.

The digital player circuitry is shown in Figure 13. A digital audio processor 104 is used to convert digital data from the RAM/ROM 106, such as through a serial cable, into a recreation of the recorded material. One possible format of the digital data is MP3. If a ROM 106 is used, it contains only a single digital recording. In an MP3 player, the ROM 106 would have stored in it a song or set of songs. The listener can only listen to the songs stored in the ROM. The “digital recording” player may have indicia of the “digital recording” on it. If the “digital recording” is a song, the indicia may be of the song’s performing artist. If a RAM 106 is used, the uploading leads 108 are used to load the digital recording, such as an MP3 file, into the RAM 106. The uploading may be performed using a computer, or a computer with an internet connection.

The signal produced by the digital audio processor 104 is amplified by an audio amplifier 40. The amplified signal is sent to a speaker 96. The speaker 44 produces audio signals. To power the digital recording player, a power source 54, such as a battery, is used. The source is coupled to the digital audio processor 104 through a capacitor 52 and a switch 50, which may be used to turn the player on and off and control the volume.

*

*

*

CLAIMS

What is claimed is:

1. A method for associating portable communication devices with a predetermined broadcast, the method comprising:

providing portable communication devices preset to receive the predetermined broadcast; and

5 distributing the preset communication devices to individuals for receiving the predetermined broadcast.

2. The method of claim 1 wherein the predetermined broadcast has an associated broadcast time period, the method further comprising:

preventing operation of the communication devices during time periods other than the broadcast time period.

3. The method of claim 1 wherein the portable communication devices have indicia of the predetermined broadcast.

4. The method of claim 1 wherein the portable communication devices are fixedly set to receive only the predetermined broadcast.

5. The method of claim 1 further comprising preventing an individual being distributed the communication device from resetting the communication device to another broadcast.

6. The method of claim 1 wherein the predetermined broadcast is associated with an event and the communication devices are distributed along with tickets of the event.

7. The method of claim 1 wherein the predetermined broadcast is an event and the communication devices are distributed upon entry to the event.

8. The method of claim 1 wherein the broadcast is associated with an event and the communication device has indicia of the event.

9. The method of claim 1 wherein the communication device has indicia of an advertiser of the broadcast.

10. The method of claim 1 further comprising:
each portable communication device transmitting a use signal when operating; and
receiving the use signals for the operating communication devices to determine a number of the operating units.

11. A portable radio associated with a predetermined broadcast, the radio comprising:

a receiver for receiving the predetermined broadcast, the receiver preset to receive the predetermined broadcast; and

a speaker for producing audio signals of the received predetermined broadcast.

12. The radio of claim 11 wherein the radio has indicia of the predetermined broadcast.

13. The radio of claim 11 wherein the radio receiver comprises a variable frequency tuner which is set to the frequency of the predetermined broadcast during manufacture.

14. The radio of claim 11 further comprising a rechargeable battery for supplying power to the radio.

15. The radio of claim 11 further comprising an input to allow a received frequency of the radio to be changed.

16. The radio of claim 15 wherein the input is a female adapter.

17. A portable communication device associated with a predetermined broadcast, the device comprising:

a receiver for receiving the predetermined broadcast, the receiver preset to receive the predetermined broadcast; and

a speaker for producing audio signals of the received predetermined broadcast.

18. The device of claim 17 further comprising indicia of the predetermined broadcast.

19. The device of claim 17 further comprising indicia of an advertiser associated with the predetermined broadcast.

20. The device of claim 17 further comprising a battery for powering components of the device and a timer switch for selectively coupling the battery to the components and a timer; wherein the timer prevents operation of the radio by effectively decoupling the battery from the components using the timer switch.

21. The device of claim 17 wherein the receiver is fixedly set to receive the predetermined broadcast.

22. The device of claim 17 wherein the predetermined broadcast is broadcast in a digital format and the receiver is a digital receiver.

23. The device of claim 17 wherein the device is a radio and the predetermined broadcast is of a predetermined radio station and the receiver is preset to the predetermined radio station.

24. The device of claim 17 wherein the portable communication device is fixedly set to receive only the predetermined broadcast.

25. The device of claim 17 wherein the broadcast has an associated broadcast time period and the device further comprising a timer and an associated switch for preventing operation of the communication device during time periods other than the associated broadcast time period.

26. The device of claim 17 having an off state and on states with a plurality of differing volumes, the device having a button for switching between the states.

27. The device of claim 17 having an off state and on states with a plurality of differing volumes, the device having a switch for switching between the states.

28. The device of claim 17 further comprising a rechargeable battery for powering components of the device.

29. A portable radio comprising:
a speaker configured to direct sounds towards an ear canal of a listener's ear; and

a housing fixedly connected to the speaker, the housing configured to be substantially supported by a pinna of the listener's ear and containing the radio receiver.

30. The radio of claim 29 wherein the housing is substantially a C-shape.

31. The radio of claim 30 wherein the housing is a semi-flexible material.

32. The radio of claim 31 wherein when the radio is positioned for listening, the housing substantially conforms to a shape of the pinna of the listener's ear.

33. The radio of claim 32 wherein when the radio is positioned for listening the housing extends below the listener's ear.

34. The radio of claim 29 further comprising a support and a microphone, the support extending from the housing and configured so that the microphone is positioned in front of the listeners mouth.

35. The radio of claim 29 wherein the speaker is configured to fit substantially in a concha of the listener's ear.

36. The radio of claim 29 wherein the speaker is rotatable so that the speaker is capable of directing sounds into the ear canal when worn on either ear of a listener.

37. The radio of claim 29 further comprising a flexible connector connected to the speaker and the housing.

38. A communication device comprising:

a speaker configured to direct sounds towards an ear canal of a listener's ear; and
a housing fixedly connected to the speaker, the housing configured to be substantially
supported by a pinna of the listener's ear and containing substantially all other components
5 of the communication device other than the speaker.

39. The communication device of claim 38 wherein the device is used in
promotion of a predetermined broadcast.

40. The communication device of claim 38 wherein the all other components
comprises a variable frequency tuner and a tuned frequency of the tuner is adjustable by a
listener.

41. The communication device of claim 38 wherein the all other components
comprises a memory storing a recording associated with the predetermined broadcast.

42. The communication device of claim 38 further comprising indicia associated
with the predetermined broadcast.

43. The communication device of claim 38 further comprising indicia associated
with an advertiser of the predetermined broadcast.

44. The communication device of claim 38 further comprising indicia associated
with a sponsor of the predetermined broadcast.

45. The communication device of claim 38 wherein the communication device is
a digital recording player and the all other components comprising a memory for storing a

digital recording and a digital audio processor for producing an audio signal of the digital recording.

46. The digital recording player of claim 45 wherein the memory is a RAM.

47. The digital recording player of claim 45 wherein the memory is a ROM.

48. The digital recording player of claim 45 further comprising an input for receiving the digital recording.

49. The digital recording player of claim 45 further comprising indicia associated with the digital recording.

50. A system for providing a tour of an area, the area having points of interest, the system comprising:

a plurality of infrared transmitters located at points of interest, each transmitter transmitting an audio communication associated with its point of interest; and

a plurality of infrared portable communication devices for receiving the transmitted infrared audio communications and for converting the received audio communication into an audio signal; whereby a user of the communication device hears the audio communication.

51. The system of claim 50 wherein the infrared communication devices have a speaker configured to direct sounds towards an ear canal of a listener's ear and a housing fixedly connected to the speaker, the housing configured to be substantially supported by a pinna of the listener's ear and containing the infrared receiver.

52. The system of claim 50 wherein the communication devices have indicia associated with the toured area.

53. The system of claim 50 wherein the toured area is a museum and the points of interest are art in the museum.

54. The system of claim 50 wherein the toured area is an outdoor area and the points of interest are sites within the outdoor area.

55. An automated system for communicating with individuals carrying portable receivers, the system comprising:

a processor for generating commands in an audio format;

a transmitter for transmitting the commands; and

the portable receivers for receiving the transmitted commands and producing an audio signal of the command.

56. The automated system of claim 55 wherein the individuals are divided into groups, each group has an associated frequency, the individuals in each of the groups have receivers set to receive signals over that group's frequency, the processor for associating each command for a group with that group's frequency and the transmitter transmitting each command over that command's frequency.

57. An automated system compatible with an existing ordering system, individuals performing order tasks using portable receivers, the automated system comprising:

the existing ordering system producing orders in an electronic format;

a processor having middleware for converting the produced orders into an audio format;

a transmitter for transmitting the audio formatted orders; and
the portable receivers for receiving the transmitted orders and producing an audio signal of the received orders.

58. The automated system of claim 57 wherein the individuals are divided into groups, each group has an associated frequency, the individual's in each of the groups have receivers set to receive signals over that group's frequency, the middleware determines the group frequency associated with each order, the transmitter transmits each audio formatted order over the group frequency associated with that order.

ABSTRACT

A communication device is associated with a broadcast. The communication device is set to a fixed frequency during manufacture. The fixed frequency is the broadcast's frequency. The communication device receives the broadcast over the fixed frequency. The communication device's speaker produces audio signals of the received broadcast. The communication device may be a radio configured to fit substantially in and around the listener's ear.

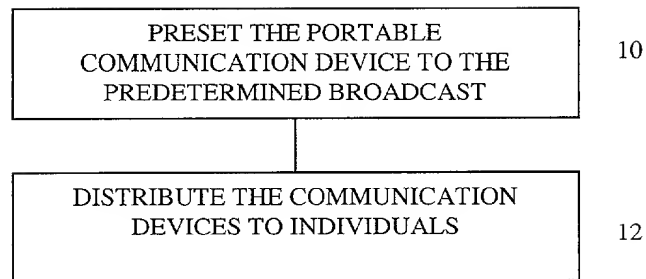


FIG. 1

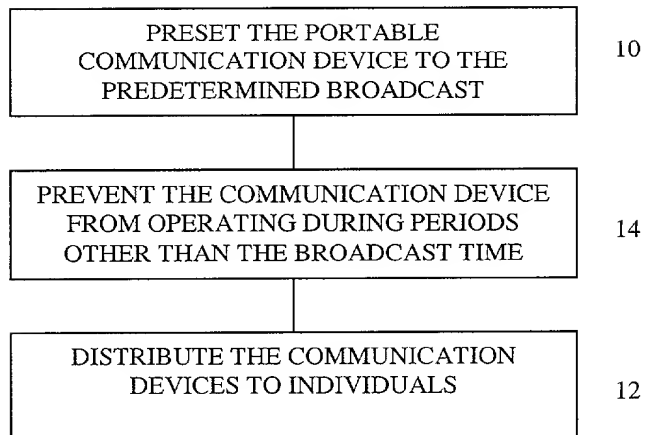


FIG. 2

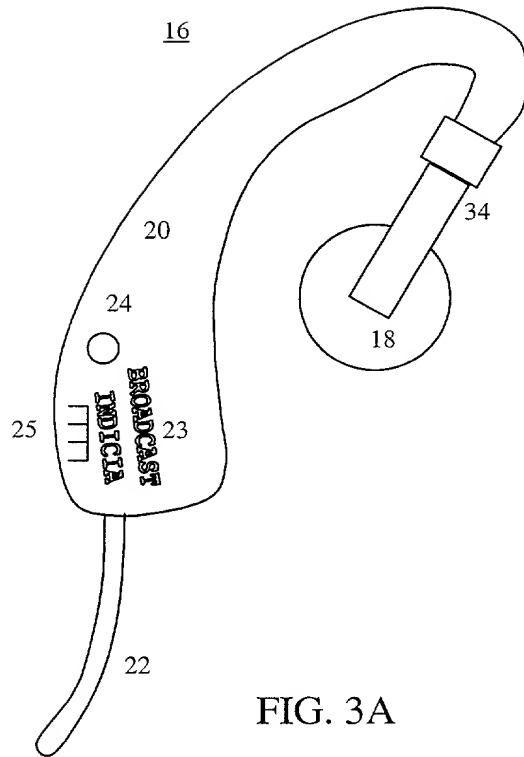


FIG. 3A

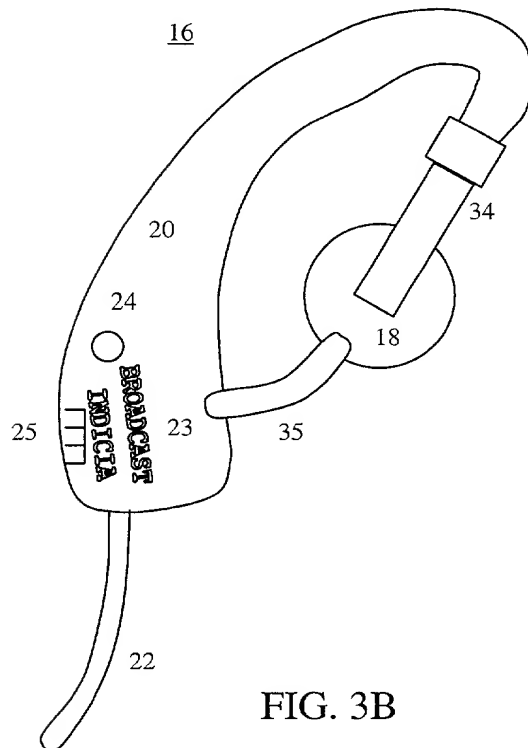


FIG. 3B

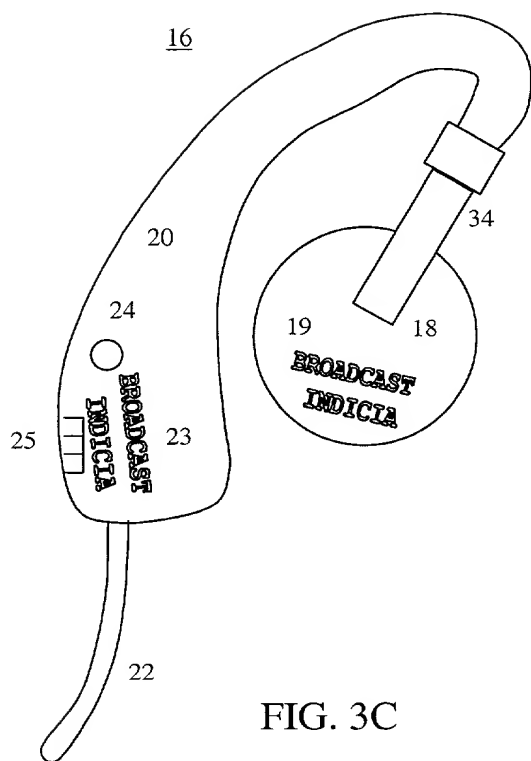


FIG. 3C

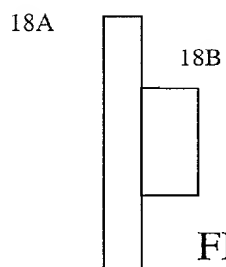


FIG. 3D

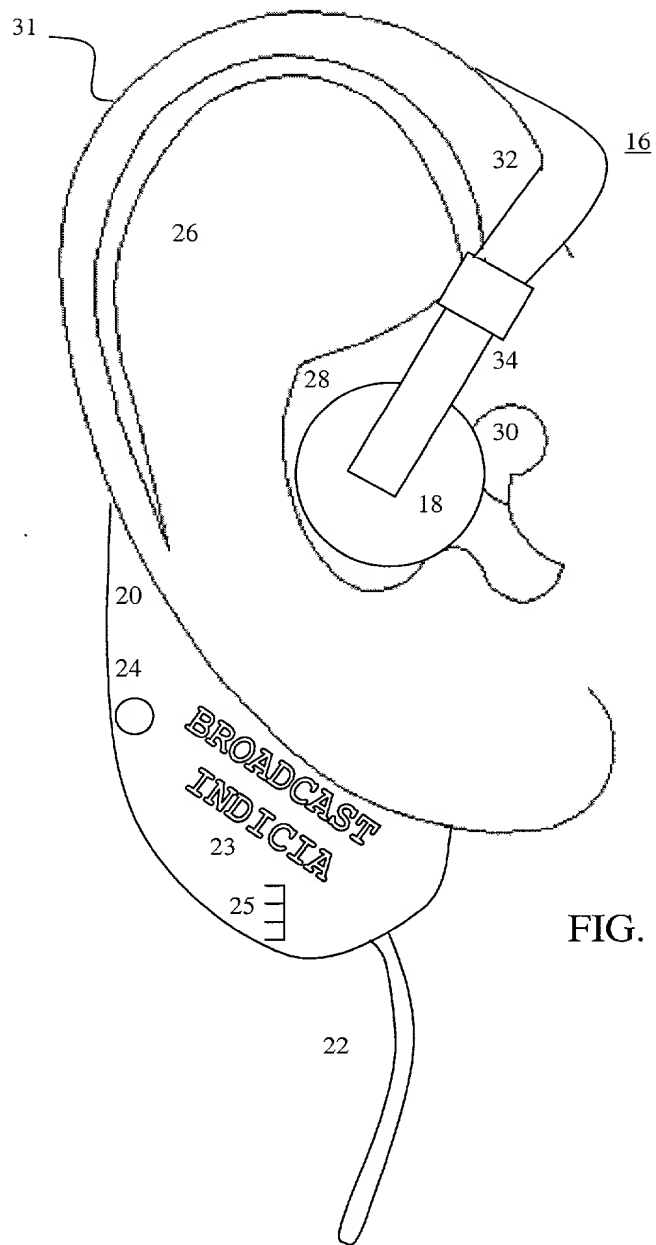


FIG. 4A

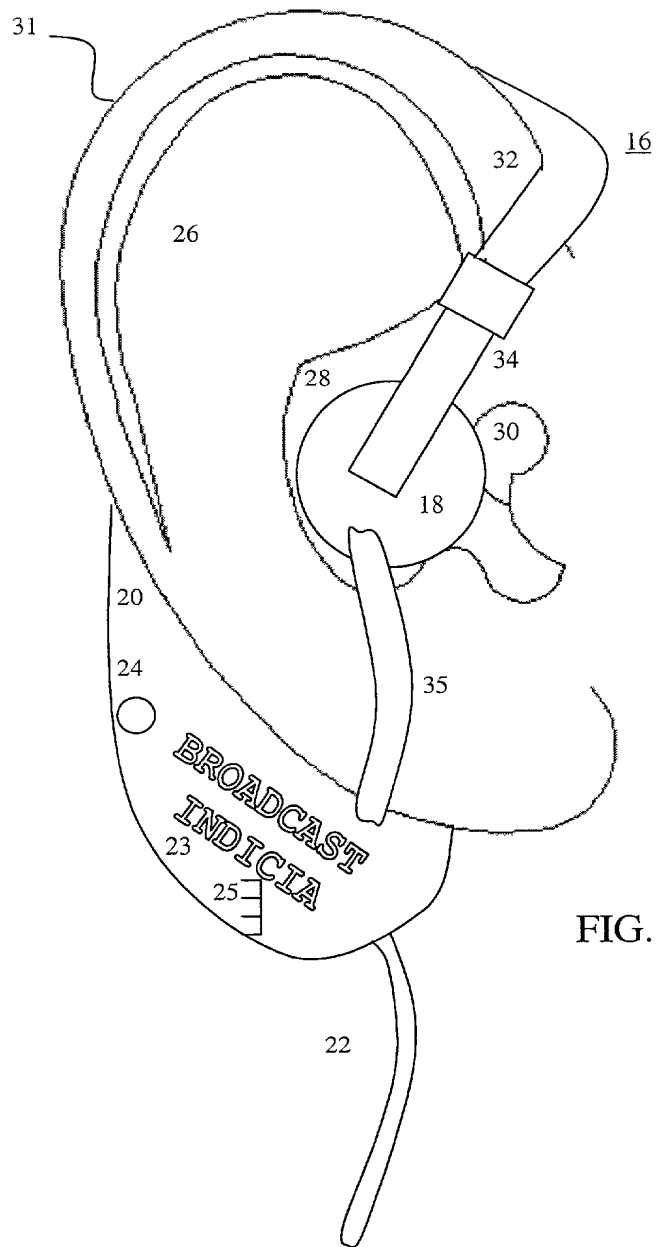


FIG. 4B

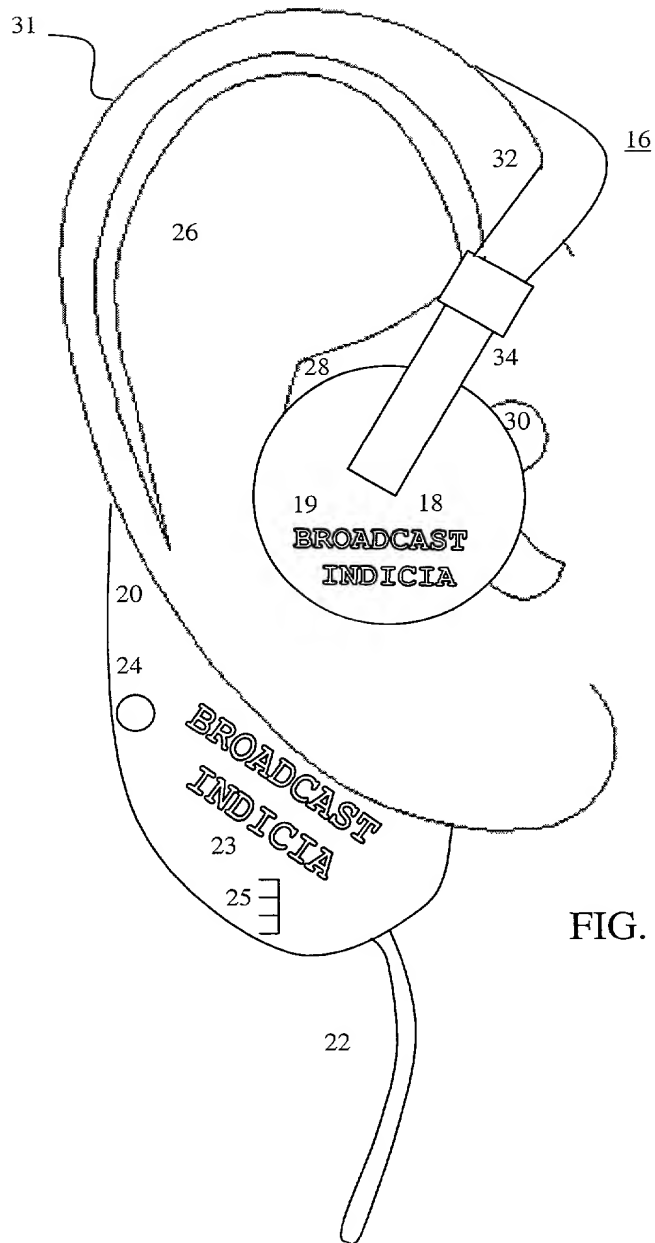


FIG. 4C

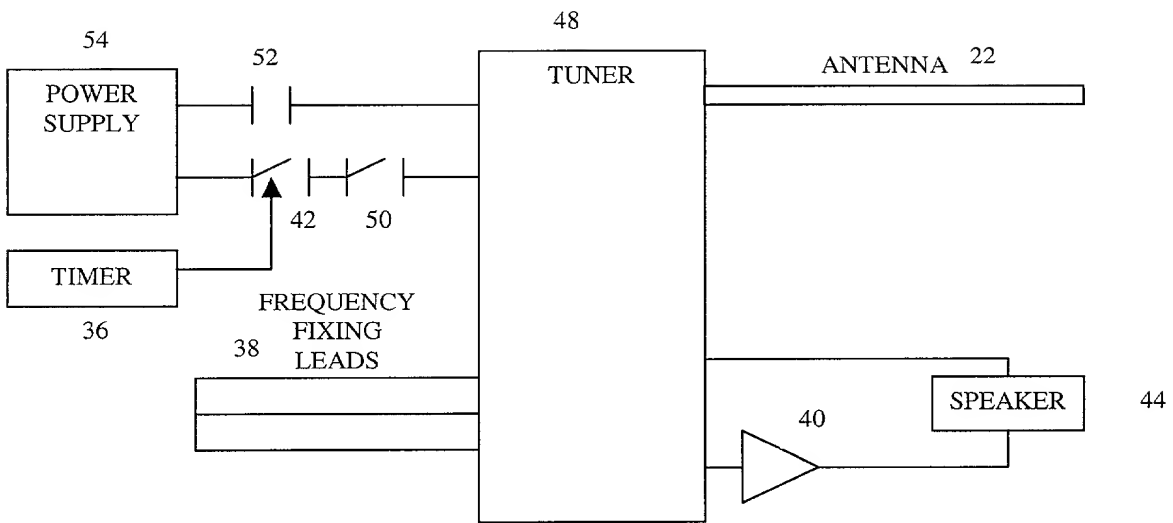


FIG. 5

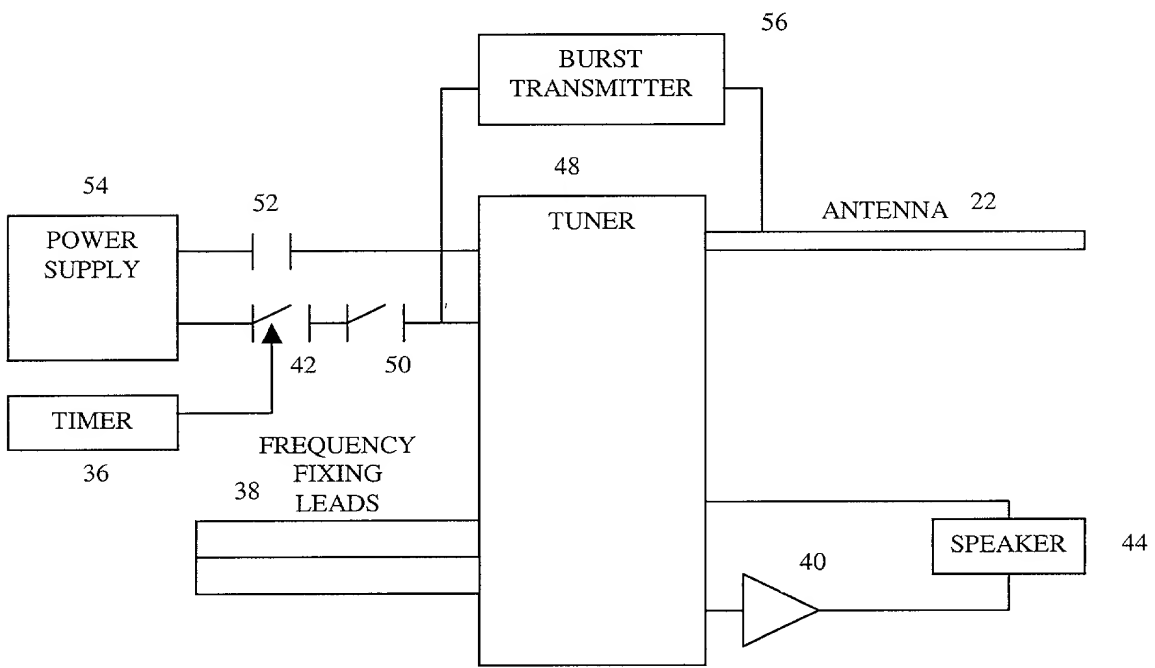


FIG. 6

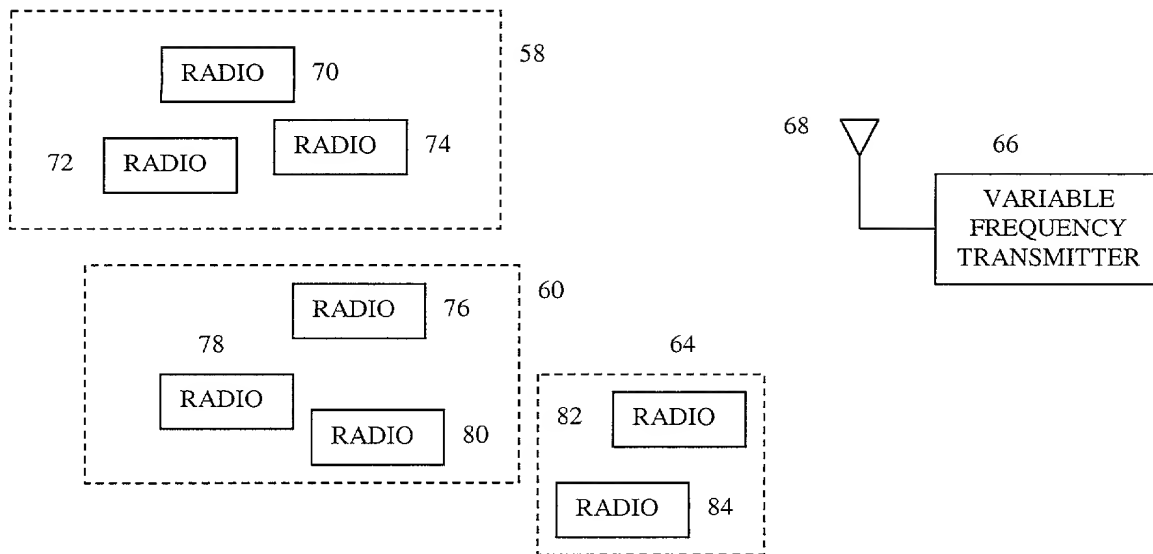


FIG. 7

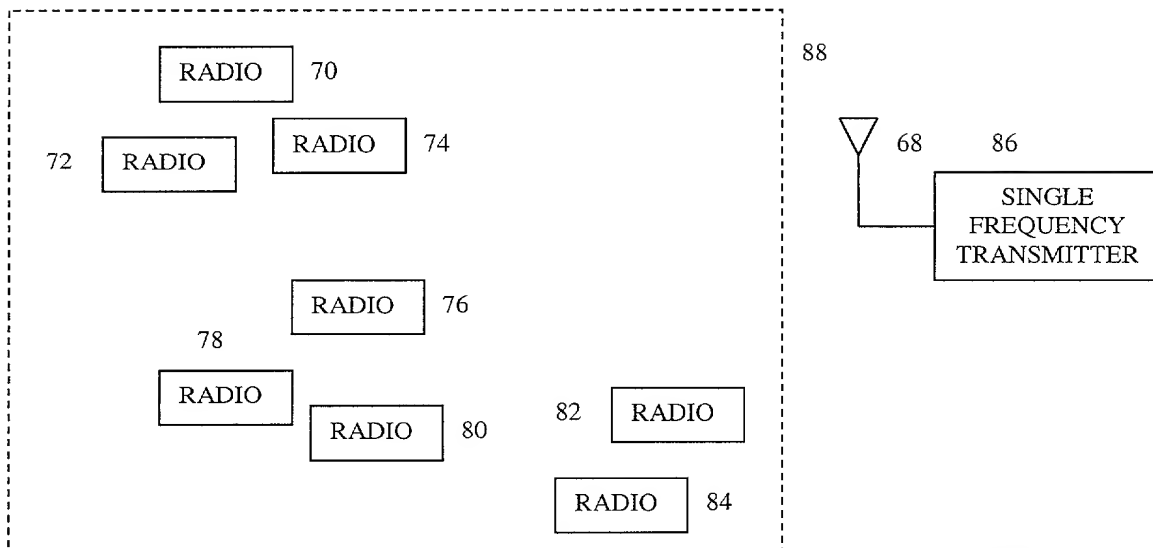


FIG. 8

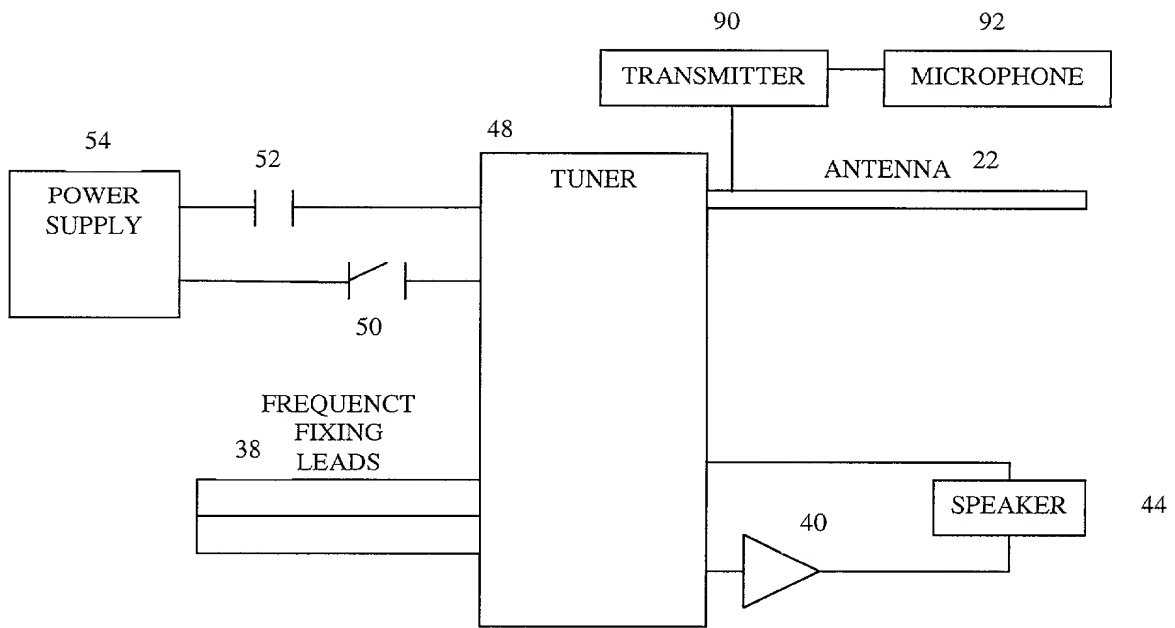


FIG. 9

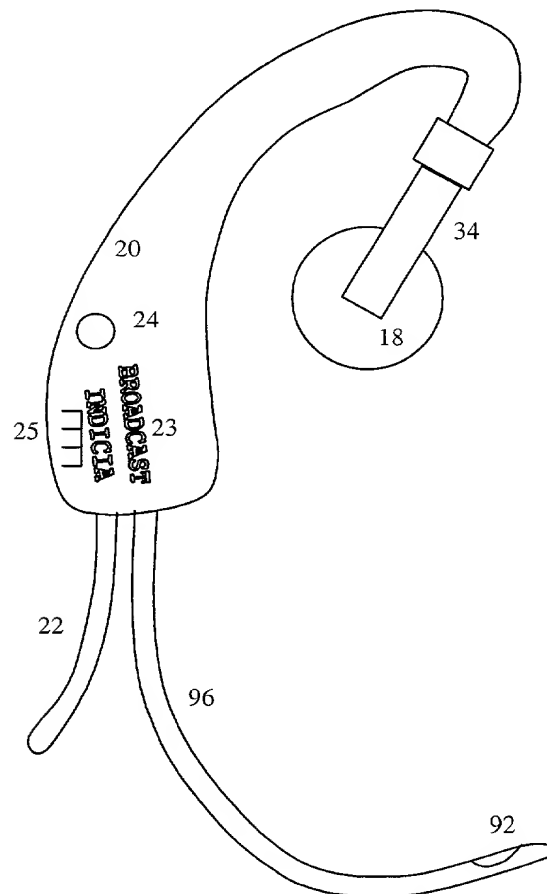


FIG. 10

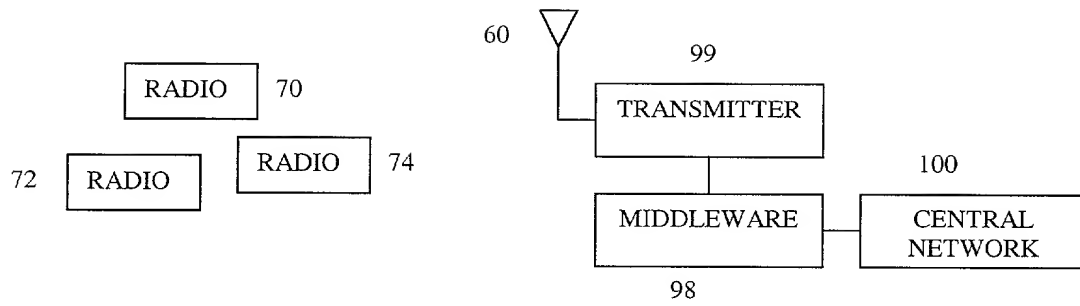


FIG. 11

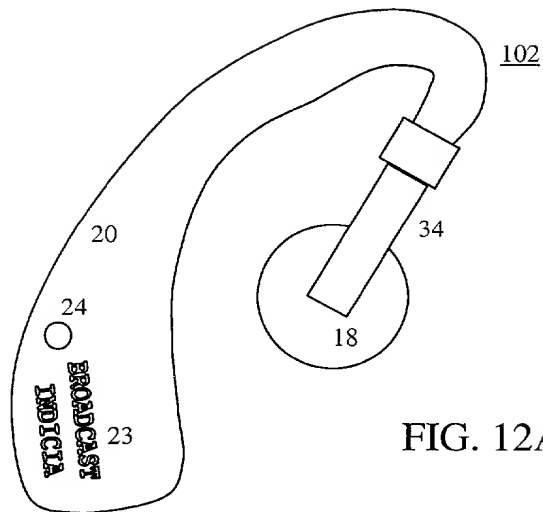


FIG. 12A

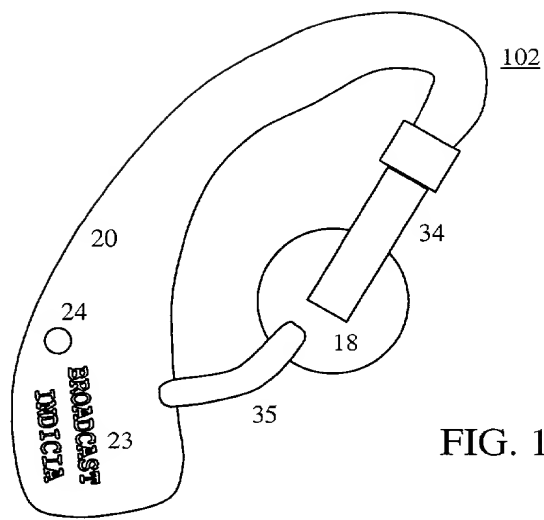


FIG. 12B

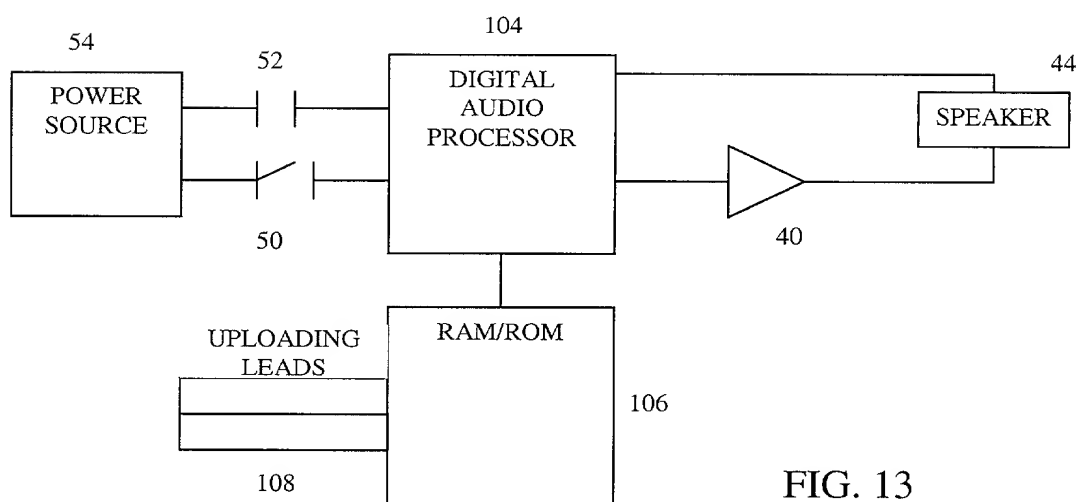


FIG. 13

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	JUR-PT001
	First Named Inventor	Schwartz et al.
	COMPLETE IF KNOWN	
	Application Number	Not Yet Known
	Filing Date	Not Yet Known
	Group Art Unit	Not Yet Known
	Examiner Name	Not Yet Known

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

LOBEMAN

the specification of which

(Title of the Invention)

☒ is attached hereto
OR☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT InternationalApplication Number and was amended on (MM/DD/YYYY) (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

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Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

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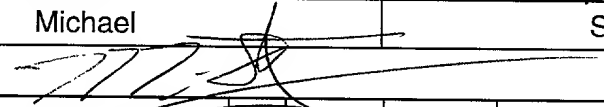
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Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))				Family Name or Surname			
Michael				Schwartz			
Inventor's Signature						Date	2000-11-02
Residence: City	Buffalo Grove	State	IL	Country	US	Citizenship	US
Post Office Address	811 Horatio Boulevard						
Post Office Address							
City	Buffalo Grove	State	IL	ZIP	60089	Country	US

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

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DECLARATION**ADDITIONAL INVENTOR(S)
Supplemental Sheet**
Page 1 of 1

Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Jaron				Jurikson-Rhodes			
Inventor's Signature	<i>Jaron Jurikson-Rhodes</i>					Date	11/2/00
Residence: City	Lansdale	State	PA	Country	US	Citizenship	US
Post Office Address	630 South Mitchell Avenue						
Post Office Address							
City	Lansdale	State	PA	ZIP	19446	Country	US
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
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Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
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